

INTERNATIONAL SEARCH REPORT

International Application No
PC1/IB2004/052631

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04B1/707

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>STEINER B ET AL: "LOW COST CHANNEL ESTIMATION IN THE UPLINK RECEIVER OF CDMA MOBILE RADIO SYSTEMS AUFWANDSGUESTIGE KANALSCHAETZUNG IN DER AUFWAERTSSTRECKE VON CDMA-MOBILFUNKSYSTEMEN" FREQUENZ, SCHIELE UND SCHON GMBH. BERLIN, DE, vol. 47, no. 11/12, 1 November 1993 (1993-11-01), pages 292-298, XP000426381 ISSN: 0016-1136 cited in the application paragraphs 'SECTION!', '04.1!</p> <p style="text-align: center;">----- -/--</p>	1,2,6,7
A		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A document defining the general state of the art which is not considered to be of particular relevance
- *E earlier document but published on or after the international filing date
- *L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O document referring to an oral disclosure, use, exhibition or other means
- *P document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

24 March 2005

Date of mailing of the international search report

04/04/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>KLEIN A: "Data detection algorithms specially designed for the downlink of CDMA mobile radio systems" VEHICULAR TECHNOLOGY CONFERENCE, 1997, IEEE 47TH PHOENIX, AZ, USA 4-7 MAY 1997, NEW YORK, NY, USA, IEEE, US, vol. 1, 4 May 1997 (1997-05-04), pages 203-207, XP010228779 ISBN: 0-7803-3659-3 cited in the application the whole document</p>	1-13
A	<p>KLEIN A ET AL: "ZERO FORCING AND MINIMUM MEAN-SQUARE-ERROR EQUALIZATION FOR MULTIUSER DETECTION IN CODE-DIVISION MULTIPLE-ACCESS CHANNELS" IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, IEEE INC. NEW YORK, US, vol. 45, no. 2, May 1996 (1996-05), pages 276-287, XP000598095 ISSN: 0018-9545 cited in the application the whole document</p>	1-13
A	<p>US 2002/110199 A1 (HAPPONEN AKI ET AL) 15 August 2002 (2002-08-15) cited in the application the whole document</p>	1-13
A	<p>US 2003/198303 A1 (TAYLOR MATTHEW A ET AL) 23 October 2003 (2003-10-23) the whole document</p>	1-13
A	<p>WO 00/05847 A (NOKIA NETWORKS OY; PIIRAINEN, OLLI; HAPPONEN, AKI) 3 February 2000 (2000-02-03) the whole document</p>	1-13
A	<p>BEHESHTI S ET AL: "Noise variance in signal denoising" 2003 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING. PROCEEDINGS. (ICASSP). HONG KONG, APRIL 6 - 10, 2003, IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP), NEW YORK, NY : IEEE, US, vol. VOL. 1 OF 6, 6 April 2003 (2003-04-06), pages VI185-VI188, XP010639447 ISBN: 0-7803-7663-3 the whole document</p>	1-13

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IAP11 Rec'd

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>KETTUNEN K: "Iterative multiuser receiver/decoders with enhanced variance estimation"</p> <p>VEHICULAR TECHNOLOGY CONFERENCE, 1999 IEEE 49TH HOUSTON, TX, USA 16-20 MAY 1999, PISCATAWAY, NJ, USA, IEEE, US, vol. 3, 16 May 1999 (1999-05-16), pages 2318-2322, XP010342275</p> <p>ISBN: 0-7803-5565-2</p> <p>the whole document</p> <p>-----</p>	1-13

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PCT/IB2004/052631

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